UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,504	05/08/2001	Theodore F. Vaida	01-036	2218

24319 7590 03/21/2007	**EXAMINER**
LSI LOGIC CORPORATION	DUONG, DUC T
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MILPITAS, CA 95035	

ART UNIT	**PAPER NUMBER**
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

		Application No.	Applicant(s)
Office Action Summary		09/851,504	VAIDA ET AL.
		Examiner	Art Unit
		Duc T. Duong	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 February 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-7,9-17 and 19-44</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>21-42</u> is/are allowed.

6)☒ Claim(s) <u>1-7,9-17,19,20,43 and 44</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____ .

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-7, 9-17, 19, 20, 43, and 44 have

been considered but are moot in view of the new ground(s) of rejection.

2.   Applicant's request for reconsideration of the finality of the rejection of the last

Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Objections

3.   Claims 21 and 31 are objected to because of the following informalities:

Regarding to claim 21, line 3, the phrase "a programmable" should be replaced

with --a **plurality** programmable-- to conform to the claim language.

Regarding to claim 31, lines 3-4, the phrase "a programmable logic core block

(MP-block)" should be replaced with --a **plurality** programmable logic core blocks (MP-

blocks)-- to conform to the claim language.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-7, 9-17, 19, 20, 43, and 44 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Starr et al (US Patent 6,807,581 B1) in view of Pandya et al

(US Patent 6,792,502 B1).

Regarding to claims 1 and 11, Starr discloses a programmable network application specific integrated circuit 700 (fig. 15 col. 20 lines 25-27), comprising a media access controller 722-728 configured to transmit and receive network data (fig. 15 col. 20 lines 61-67 and col. 21 lines 1-7); a programmable logic core 780 (fig. 15 col. 21 lines 43-47) having an arithmetic logic unit 902 (fig. 17C col. 24 lines 6-8) that are dynamically configurable to implement a plurality of application level functions capable of generating meta-data (col. 21 lines 56-59), said programmable logic core 780 configured to interface with said media access controller 722-728 and implement least one said plurality of application level functions (col. 32 lines 18-39).

Starr fails to teach for an array of arithmetic logic units.

However, Pandya discloses a processor 310 comprising a plurality arithmetic logic units ALUs (fig. 8 col. 12 lines 19-24).

Thus, it would have been obvious to a person of ordinary skill in the art to arrange for a plurality of arithmetic logic units ALUs as taught by Pandya in Starr's system to speed up or/and enhance the processor functions.

Regarding to claims 2 and 12, Starr discloses the programmable logic core 780 may be programmed while said least one application level function executing (col. 22 lines 23-26).

Regarding to claims 3, and 13, Starr discloses the programmable network application specific integrated circuit 700 comprising a data interconnect subsystem 756 configured to transmit and receive said network data from said MP-block (fig. 15 col. 21 lines 32-33) and a function master subsystem 740 configured to receive said meta-data

from said MP-block and dynamically program said programmable logic units 780 (fig. 15
col. 22 lines 1-15).

Regarding to claims 4 and 14, Starr discloses the data interconnect system 756
is further configured to transmit and receive said network data from a host system 20
(fig. 1 col. 5 lines 9-13).

Regarding to claims 5 and 15, Starr discloses the function master subsystem 740
is configured to transmit said meta-data to a host system 20 and capable of receiving
programming instructions from said host system 20 (fig. 1 col. 6 lines 15-39).

Regarding to claims 6 and 16, Starr discloses the function master subsystem 350
is capable of programming said programmable logic core 310 based upon said meta-
data (fig. 1 col. 6 lines 40-57).

Regarding to claim 7 and 17, Starr discloses the function master subsystem 740
is capable of programming said programming logic core based upon said network data
(fig. 1 col. 6 lines 58-67).

Regarding to claims 9 and 19, Starr discloses at least one application level
function is a validation of packet (col. 6 lines 58-63).

Regarding to claims 10 and 20, Starr discloses the programmable logic core 700
includes a management interface 732-738 configured to control and manage said media
access controller 722-728 (fig. 15 col. 21 lines 8-19).

Regarding to claim 43, Starr discloses the arithmetic logic units are register
transfer level (RTL) configurable (fig. 17C col. 24 lines 8-10).

Regarding to claim 44, Starr discloses at least one application level function is a content based addressing (col. 6 lines 58-63).

Allowable Subject Matter

6.   Claims 21-42 are allowed.

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-F (9:00 AM-6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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